

- 1 **Amendments to the Specification:**
- 2 Pg. 4, lines 4-9: Please replace the paragraph with the following amended paragraph:
- 3 The ~~case~~ housing 12 includes a second window 18 for viewing a display 20. The
- 4 display 20 is preferably a liquid crystal display (LCD) that selectively displays such
- 5 information as the date, the time, tone arm position, tone arm movement, elapsed time
- 6 during the auditing session, chosen display language and other pertinent information.
- 7 Three buttons 22A-C are associated with the display 20 to select and/or change the
- 8 displayed language, time, date, etc. One of the buttons is used to select a desired menu
- 9 from a series of sequentially displayed menu titles. The remaining two buttons are
- 10 respectively utilized to move a selection bar with respect to the menu to choose from
- 11 among a plurality of listed options. The first button then functions as a select button to
- 12 select the option so identified
- 13 Pg. 5, lines 6-27: Please replace the paragraph with the following amended
- 14 paragraph:
- 15 A rotary knob 24 is utilized to select the appropriate range for the meter 16 as
- 16 described below, and is typically referred to as the "TA" knob by experienced users of
- 17 these devices. The term "TA" will accordingly be used herein to refer to meter range
- 18 setting from time to time. The TA knob 24 is preferably coupled to an optical encoder
- 19 within the housing that produces a digital value indicative of the knob's rotational
- 20 position. The rotational position of the knob may conveniently be thought of in terms of
- 21 the number of degrees it has been rotated from its counterclockwise endpoint, but is
- 22 conveniently discussed in terms of the TA value represented by its position. The knob is
- 23 accordingly shaped at 24A to point to a TA value on a stationary, circumferentially
- 24 disposed numeric scale 36 imprinted on the case 12. The scale is preferably provided
- 25 with gradations marked from "0" to "6" over an arc of approximately 240°, and the knob
- 26 is typically rotated clockwise from a TA value of 0.5 to a TA value of 6.5 during the
- 27 auditing procedure. It should be noted that the numbers and spacing have been chosen to
- 28 be consistent with prior devices such as those illustrated and described in U.S. 4,459,995
- 29 and that any series of numbers, letters or other markings arranged about any convenient
- 30 arc could be utilized without departing from the spirit of the invention.

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2 Pg. 6, lines 3-15: Please replace the paragraph with the following amended paragraph

3 Figure 2 is a top view of the preferred meter 16. The meter is preferably a
4 moving-coil meter capable of reading from 0 to 100 microamps at full scale deflection,
5 and has an arcuate scale 38 divided into sections. At approximately one-third of the
6 distance from its left endpoint, the scale displays a small sector of arc marked "SET". In
7 operation, and during the pre-operation calibration of the meter, its needle 17 is described
8 as being "at SET" when the needle points to the segment of the scale labeled as "SET".
9 The TA knob 24 is used to periodically bring the needle back to the area near SET during
10 the auditing process, and the sensitivity of the meter is adjusted using the buttons ~~22a-22e~~
11 28a-28c and knob 26 before or during the auditing procedure to obtain appropriately
12 meaningful needle deflections. Preferably, no more than 50 micro-amps of electrode
13 current flows through the audited person's body. This level has been found to assure the
14 person's comfort, while providing properly responsive needle "reads" as the person is
15 monitored during auditing.

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17 Pg. 6, line 29 – pg. 7, line 7, line 2: Please replace the paragraph with the following
18 amended paragraph

19 The front-end circuitry 100 comprises a resistance sensing circuit 108 for
20 producing a measurement signal indicative of body resistance, a voltage follower 110 for
21 filtering and isolating the measuring signal from the effects of other system components,
22 and an analog-digital converter ~~120a~~ 120 for converting the measurement signal to a
23 digital value indicative of body resistance measured by the resistance sensing circuit.

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25 Pg. 7, lines 3-12: Please replace the paragraph with the following amended
26 paragraph:

27 The resistance sensing circuit is preferably of the voltage divider type electrically
28 coupled between a positive D.C. source voltage V_{DD} AV_{DD} and ground GND $AGND$.
29 During the auditing session, the resistance sensing circuit comprises a 4.99K resistor R1,
30 the body resistance R_{PC} (as sensed between the electrodes 30, 32 coupled to pins 1 and 3

1 of jack 104), and a 45.3K resistor R3, all coupled in series between the D.C. source V_{DD}
2 $A V_{DD}$ and ground. When the monitoring electrodes have been disconnected from the
3 jack 104, the jack is configured to electrically couple pins 2 and 3 together, placing the ~~4.99k~~
4 4.99k resistor R2 across the jack.

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6 Pg. 9, lines 21-33: Please replace the paragraph with the following amended
7 paragraph:

8 Accordingly, the CPU 400 ~~sends~~ sends appropriate selection signals to pins 9, 10,
9 11 of the ~~multiplier~~ multiplexor 102 upon power-up to cause its terminal X to be
10 sequentially coupled to terminals X1, X2, and X3, respectively placing a 4.99K resistor
11 R2, a 12.4K resistor R4, and a short circuit in series with resistors R1 and R3 in lieu of
12 Rpc. The value of eo under each condition is fed to the operational amplifier 110,
13 digitized by the converter 120 and outputted to the central processing unit 400. The above
14 values were chosen for R2 and R4 because the TA ranges of “2” and “3” have historically
15 been the most commonly used settings when monitoring body resistance. The short
16 circuit condition is used to easily provide an additional data points. An open-circuit
17 condition could be used as well.

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19 Pg. 9, lines 21-33: Please replace the paragraph with the following amended
20 paragraph:

21 Accordingly, the central processor 400 provides an automatically correcting gain
22 factor to the meter drive signal for the purpose of substantially ~~increasing the~~ eliminating
23 the possibility of masked and false readings across the usable range of TA values. The
24 preferred gain factors are:

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26 Pg. 9, lines 21-33: Please replace the paragraph with the following amended
27 paragraph:

28 Likewise, the medium sensitivity range button ~~26b~~ 28c and low sensitivity range
29 button ~~26e~~ 28b, are respectively assigned column addresses of 2 and 3, and the
30 conductors associated with these columns are respectively monitored by pins 52 and 53

1 of the CPU. Those skilled in the art will recognize that the use of digital amplification
2 eliminates the unwanted amplification of noise the would accompany the amplification of
3 an analog signal value, rendering small changes in body resistance more visually
4 perceptible with the subject device.

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6 Pg. 15, line 26 – pg. 16, line 2: Please replace the paragraph with the following
7 amended paragraph:

8 The sensitivity knob position signal 532 is applied to pin 93 of the CPU 400,
9 where it is internally coupled to an analog-digital converter that produces a digital value
10 indicative of the knob's setting. As illustrated in Figure 6, the sensitivity knob is
11 mechanically coupled to the wiper ~~526A~~ ~~524A~~ of a potentiometer ~~526~~ ~~524~~ that is serially
12 coupled between a 10K resistor ~~520~~ ~~525~~ and a 10K resistor ~~522~~ ~~526~~ in circuit between
13 the DC source voltage VDD and ground GND. The resistor ~~520~~ ~~525~~, potentiometer ~~526~~
14 ~~524~~ and resistor ~~522~~ ~~526~~ form a voltage divider network. The sensitivity knob position
15 signal 532 is accordingly a DC level signal that increases as the knob is turned clockwise
16 and the wiper moves away from ground.

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18 Pg. 16, line 27- pg. 17, line 2: Please replace the paragraph with the following
19 amended paragraph

20 The ~~current drive control~~ circuit 606 comprises an operational amplifier 608,
21 which receives the analog output signal 604 at its non-inverting input. The output of the
22 operational amplifier 608 is partially fed back to its inverting input to a degree controlled
23 by a digital potentiometer ~~610~~ ~~616~~ in the feedback loop whose resistance is set by data
24 received at pins 1, 2 from the processor 400. The digital potentiometer 610 is adjusted
25 during the assembly process to provide a desired amount of meter dampening, and the
26 values applied by the CPU preserve that dampening characteristic.

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